

Notice of Allowability

Application No.

10/680,049

Examiner

Fred I. Ehichioya

Applicant(s)

GREENBLATT ET AL.

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/08/2005.
2. ☒ The allowed claim(s) is/are 1, 4 - 10 and 42.
3. ☒ The drawings filed on 07 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


SHAHID ALAM
PRIMARY EXAMINER

DETAILED ACTION

1. This is in response to Election/Restriction filed August 23, 2004. Applicants Elected original restricted group I and withdraw original restricted group II. Applicants also amended claims in group I.

Election/Restrictions

2. There are 2 ways restriction requirements within amended group I. These claims are restricted on genus species.

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group I: Claims 1, 4 – 10 and 42, drawn to a method for identifying related RDF triples in a directed graph classified in class 707, subclass 4.

Group II: Claims 11 – 20, drawn to manipulating data structure classified in class 707, subclass 101.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions listed as Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention has separate utility as follows:

Group I has separate utility such as a computerized method for identifying related RDF triples in a directed graph.

Group II has separate utility such as identifying as related data that is a directed ancestor of data identified and a named relationship with the identified ancestor substantially matching a relationship named in the criteria. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Applicants elected group I consists of claims 1, 4 – 10, 42 and suggested to cancel remaining claims by examiner's amendment.

During telephone conversation with David J. Powsner, Attorney for the Applicants, Registration Number 31,868 on February 17, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1 – 10 and 42. Applicant in reply to this Office action must make affirmation of this election. Claims 8 - 20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Examiner's Amendment

5. During telephone conversation with Joseph P. Mehrle, Attorney for the Applicant, Registration Number 45,535 on February 17, 2005 authorizations for this Examiner's amendment was given in a telephone interview.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims,

Please amend claim 1

1. A method for identifying related triples in a in a resource description framework (RDF) data set, comprising:

A. executing the sub-steps of:

- (i) identifying as related a triple substantially matching a criteria;
- (ii) identifying as related a triple that is a direct ancestor of a triple identified in any of sub-steps in step A, and that is not in substantial conflict with the criteria;

where, for purposes hereof, a triple whose object is the subject of another triple is deemed a direct ancestor of that other triple, and, conversely, where a triple whose subject is the object of another triple is deemed a direct descendent of that other triple;

- (iii) identifying as related a triples (hereinafter "identified descendent") that is a direct descendent of a triple (hereinafter "identified ancestor") identified as related in any of sub-steps in step A, and which identified descendent
 - (a) is not associated with the identified ancestor via a predicate substantially matching a predicate named in the criteria, if any, and
 - (b) is not in substantial conflict with the criteria;
 - (c) is not associated with the identified ancestor via a predicate by which the identified ancestor is associated with a triple, if any, as a result of which the identified ancestor was identified during execution of sub-step (ii),
- B. generating an indication of RDF triples identified as related in step (A).

Please amend claim 7

7. The method of claim 1, wherein the resource description framework comprises of a data flow.

Please amend claim 42

42. A method for identifying related triples in a in a resource description framework (RDF) data set, comprising:

- A. executing the sub-steps of:

- (i) identifying as related a triple that is a direct ancestor of a triple identified in any of sub-steps in step A, and that is not in substantial conflict with the criteria;

where, for purposes hereof, a triple whose object is the subject of another triple is deemed a direct ancestor of that other triple, and, conversely, where a triple whose subject is the object of another triple is deemed a direct descendent of that other triple;
 - (ii) identifying as related a triples (hereinafter "identified descendent") that is a direct descendent of a triple (hereinafter "identified ancestor") identified as related in any of sub-steps in step A, and which identified descendent
 - (a) is not associated with the identified ancestor via a predicate substantially matching a predicate named in the criteria, if any, and
 - (b) is not in substantial conflict with the criteria;
 - (c) is not associated with the identified ancestor via a predicate by which the identified ancestor is associated with a triple, if any, as a result of which the identified ancestor was identified during execution of sub-step (ii),
- B. generating an indication of RDF triples identified as related in step (A).

Please cancel claims 2, 3, and 11 - 41.

Allowable Subject Matter

6. Claims 1, 4 – 10 and 42 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

The prior art of record, either singularly or in combination, fail to anticipate or render obvious the recited feature "where, for purposes hereof, a triple whose object is the subject of another triple is deemed a direct ancestor of that other triple, and, conversely, where a triple whose subject is the object of another triple is deemed a direct descendent of that other triple;

- (ii) identifying as related a triples (hereinafter "identified descendent") that is a direct descendent of a triple (hereinafter "identified ancestor") identified as related in any of sub-steps in step A, and which identified descendent
 - (a) is not associated with the identified ancestor via a predicate substantially matching a predicate named in the criteria, if any, and
 - (b) is not in substantial conflict with the criteria;
 - (c) is not associated with the identified ancestor via a predicate by which

the identified ancestor is associated with a triple, if any, as a result of which the identified ancestor was identified during execution of sub-step (ii).

The closest prior art of record US Pub 2003/0074352, discloses Resource description framework (RDF), subject, predicates and objects represented in a directed graph as shown on page 4, [0065] – [0068], but does not disclose identifying as related a triples (hereinafter "identified descendent") that is a direct descendent of a triple (hereinafter "identified ancestor") identified as related in any of sub-steps in step A, and

which identified descendent

- (a) is not associated with the identified ancestor via a predicate substantially matching a predicate named in the criteria, if any, and
- (b) is not in substantial conflict with the criteria;
- (c) is not associated with the identified ancestor via a predicate by which the identified ancestor is associated with a triple.

The closest prior art of record US Pub 2002/0118688, discloses RDF triplets composed of a subject, predicate, and objects as shown on page 4, [0039, but does not disclose (identifying as related a triples (hereinafter "identified descendent") that is a direct descendent of a triple (hereinafter "identified ancestor") identified as related in any of sub-steps in step A, and which identified descendent

- (a) is not associated with the identified ancestor via a predicate substantially matching a predicate named in the criteria, if any, and
- (b) is not in substantial conflict with the criteria;
- (c) is not associated with the identified ancestor via a predicate by which the identified ancestor is associated with a triple.

The dependent claims, being definite, further limiting, and fully enabled by the specification are also allowed.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Patent Examiner
Art Unit 2162

February 22, 2005.


SHAHID ALAM
PRIMARY EXAMINER